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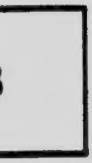

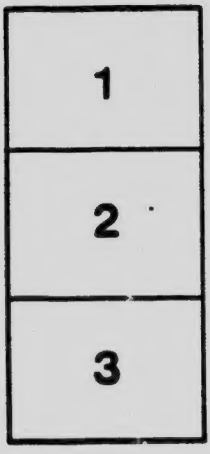

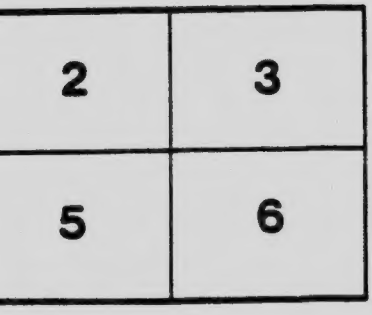

REPORT

OF THE

CANADIAN ARCTIC EXPEDITION 1913-18

VOLUME III: INSECTS

INTRODUCTION

AND

LIST OF NEW GENERA AND SPECIES COLLECTED BY THE EXPEDITION

By C. GORDON HEWITT

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OTTAWA
THOMAS MULVEY,
PRINTER TO THE KINGS MOST EXCELLENT MAJESTY
1920

Issued December 10, 1920

Report of the Canadian Arctic Expedition, 1913-18.

VOLUME III: INSECTS.

INTRODUCTION. By C. Gordon Hewitt ..... *(Issued 1920).*

Part A: COLLEMBOLA. By Justus W. Folsom. ..... *(Issued July 10, 1919).*

Part B: NEUROPTEROID INSECTS. By Nathan Banks. ..... *(Issued July 11, 1919).*

Part C: DIPTERA.
Crane-flies. By Charles P. Alexander.
Mosquitoes. By Harrison G. Dyar.
Diptera (excluding Tipulidæ and Culicidæ). By J. R. Malloch ..... *(Issued July 14, 1919).*

Part D: MALLOPHAGA AND ANOPLURA.
Mallophaga. By A. W. Baker.
Anoplura. By G. F. Ferris and G. H. F. Nuttall ... *(Issued September 12, 1919).*

Part E: COLEOPTERA.
Forest Insects, including Ipidæ, Cerambycidæ, and Buprestidæ. By J. M. Swaine.
Carabidæ and Silphidæ. By H. C. Fall.
Coccinellidæ, Elateridæ, Chrysomelidæ, and Rhynchophora (excluding Ipidæ). By C. W. Leng.
Dytiscidæ. By J. D. Sherman, Jr. ..... *(Issued December 12, 1919).*

Part F: HEMIPTERA. By Edward P. Van Duzee ..... *(Issued July 11, 1919).*

Part G: HYMENOPTERA AND PLANT GALLS.
Sawflies. (Tenthredinoidea). By Alex. D. MacGillivray.
Parasitic Hymenoptera. By Charles T. Brues.
Wasps and Bees. By F. W. L. Sladen.
Plant Galls. By E. Porter Felt ..... *(Issued November 3, 1919).*

Part H: SPIDERS, MITES, AND MYRIAPODS.
Spiders. By J. H. Emerton.
Mites. By Nathan Banks.
Myriapods. By Ralph V. Chamberlin ..... *(Issued July 14, 1919).*

Part I: LEPIDOPTERA. By Arthur Gibson ..... *(Issued January 10, 1920).*

Part J: ORTHOPTERA. By E. M. Walker ..... *(Issued September 4, 1920).*

Part K: GENERAL OBSERVATIONS ON INSECT LIFE IN THE ARCTIC. By Frits Johansen ..... *(In preparation)*

REPORT

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LIST OF NEW GENERA AND SPECIES COLLECTED BY THE EXPEDITION

By C. GORDON HEWITT

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1920

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Issued December 10, 1920

INTRODUCTION.

INTRODUCTION.

Our knowledge of the insect fauna of northern and arctic Canada has hitherto been so meagre, and our collections so lacking in material from that region that the invitation given me in 1913 by the Deputy Minister of Mines to prepare a memorandum of instructions concerning the collection of insects by the Canadian Arctic Expedition which was then being organized was more than welcome, and high hopes were entertained that a rich harvest would result. The sad and untimely death of Mr. James Murray, the marine biologist of the expedition, following the loss of the *Karluk*, placed upon the shoulders of Mr. Frits Johansen, to whom the entomological work had been assigned, a double burden and increased duties and he became responsible for the marine biology in addition to his botanical and entomological work. The large collections of marine and other invertebrates, fishes, and plants testify as to the assiduity with which Mr. Johansen collected. But, as was inevitable the number of insects collected was less than we had originally hoped to receive. Nevertheless, the collection of insects brought back by the expedition was a very representative one, and, as the succeeding reports will show, it has been the means of adding valuable information to our knowledge of the insects of the northern regions of this continent. No less than 8 new genera, 93 new species and 5 new subspecies and varieties have been described in the following pages. In addition, as a result of Mr. Johansen's keen desire to obtain notes on the life-histories and bionomics of these northern forms and the investigations that he carried on under the difficult conditions incident to such work in the north, he has been able to add much to our knowledge of northern insect life, and his notes will be found scattered through the reports in the different orders and families. Mr. Johansen's report on the insect life of the arctic will be read with interest in conjunction with the other reports, since it gives a picture of the conditions under which the insects were found; too often entomologists lose sight of the ecological aspect of an insect fauna, and reports become mere systematic catalogues and lifeless. The abundance and variety of the arctic and sub-arctic insect life will be surprising perhaps to many entomologists who have not hitherto appreciated the burst of plant and insect life that takes place during the short arctic summer when the land is clothed with vegetation and flowers which are visited by innumerable bumble bees, moths and butterflies and other sun-loving insects, enjoying the brief spell of existence that release from the gelid land and water permits.

We desire to express our warm appreciation of the assistance so willingly rendered by the authors whose names appear on the different reports in this volume in working up this interesting collection of the insects of the arctic and sub-arctic region of North America, and we hope that this volume may stimulate further investigation of a fauna of interest alike to the systematist and to those who are interested in the broader question of the distribution of animal life.

C. GORDON HEWITT,

Dominion Entomologist.

OTTAWA, January, 1920.

LIST OF NEW GENERA AND SPECIES COLLECTED BY THE EXPEDITION

By C. Gordon Hewitt

List of New Genera and New Species of Insects, Arachnids and Myriapods collected by the Canadian Arctic Expedition, 1913-18.

Part A. Collembola

New Genera.	Page.	New Species.	Page
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible] Folsom	5A
[illegible]	[illegible]	[illegible] Folsom	6A
[illegible]	[illegible]	[illegible] Folsom	13A

Part B. Neuropteroid Insects

[illegible] Banks	3B
[illegible] Banks	4B

Part C. Diptera

D[illegible] Alexander	4c
Eriopter[illegible] Alexander	5c
Limnophila rhodoptiloides Alexander	6c
Tricyphona brevifurcata Alexander	6c
Tricyphona frigida Alexander	7c
Stagnopsis parvandes Alexander	9c
Nephelomia arctica Alexander	10c
Tipula [illegible] Alexander	11c
" [illegible] Alexander	11c
" *brevitibia* Alexander	12c
" *subpolaris* Alexander	14c
" [illegible] Alexander	14c
" *subarctica* Alexander	15c
Ad[illegible] Dyar	15c
Tar[illegible] Malloch	32c
Diamesa arctica Malloch	35c
Prosimulium borealis Malloch	37c
Simulium [illegible] Malloch	41c
Rhamphomyia crinacioides Malloch	42c
" [illegible] Malloch	45c
" *concolor* Malloch	46c
" *laeviseta* Malloch	46c
" *conservativa* Malloch	47c
Dolichopus dasyops Malloch	48c
Hydrophorus palparsis Malloch	49c
Aphiochaeta alaskensis Malloch	51c
" *plicata* Malloch	52c
Leptocera transversalis Malloch	52c
Syrphus sodalis var. *interruptus* Malloch	53c
Pelecocera arctica Malloch	55c
Phormia caerulea Malloch	57c
Phaonia minima Malloch	59c
" *imitatrix* Malloch	61c
Mylacina obscura Malloch	61c
Aricia borealis Malloch	62c
Pogonomyia quadrisetosa Malloch	64c
Pogonomyia [illegible] Malloch	66c
Hydrophoria arctica Malloch	67c
Alliopsis obesa Malloch	69c
Hylemyia acrostichalis Malloch	70c
Phorbia brevitarsata Malloch	72c
Ganatherus atricornis Malloch	73c
Cordyluretta [illegible] Malloch	77c
Dasypleuron tibialis Malloch	78c
Allomyia unguiculata Malloch	79c
Oecothea arctata Malloch	80c
Neoleria rotundicornis Malloch	82c
Piophila borealis Malloch	84c

Mylacina Malloch	62c		
Pogonomyioides Malloch	67c		
Cordyluretta Malloch	78c		
Dasypleuron Malloch	79c		
Allomyia Malloch	80c		
Neoleria Malloch	83c		

Part E. Coleoptera.

New Genera.	Page.	New Species.	Page.
		Dendroctonus johanseni Swaine	5E
		Carphoborus andersoni Swaine	6E
		Callidium subopacum Swaine	12E
		Trichalophus stefanssoni Leng	20E

Part F. Hemiptera.

		Euscelis hyperboreus Van Duzee	4F

Part G. Hymenoptera and Plant Galls.

		Rhogogastera reliqua MacGillivray	4G
		Euura abortiva MacGillivray	4G
		" *arctica* MacGillivray	5G
		Pontania atrata MacGillivray	6G
		" *lorata* MacGillivray	8G
		" *delicatula* MacGillivray	8G
		" *deminuta* MacGillivray	9G
		" *quadrifasciata* MacGillivray	10G
		" *subpallida* MacGillivray	11G
		" *trifasciata* MacGillivray	11G
		Amauronematus completus MacGillivray	13G
		" *indicatus* MacGillivray	14G
		" *digestus* MacGillivray	14G
		" *cogitatus* MacGillivray	15G
		" *varianus* MacGillivray	16G
		" *aulatus* MacGillivray	16G
		" *magnus* MacGillivray	17G
		Aptesis nivarius Brues	21G
		Polyblastus arcticus Brues	22G
		Dioctes molestus Brues	23G
		Bombus neoboreus Sladen	28G
		Bombus sylvicola var. *johanseni* Sladen	30G

Part H. Spiders, Mites and Myriapods.

Spiders		*Tmeticus alatus* Emerton	3H
		Micronета maritima Emerton	4H
		Lycosa asivak Emerton	5H
Mites		*Stigmaeus arcticus* Banks	11H
Myriapods			
Cryophilus Chamberlin	17H	*Cryophilus alaskanus* Chamberlin	18H
		Ethopolys integer Chamberlin	20H
		Ethopolys integer subsp. *alaskanus* Chamberlin	H

Part I. Lepidoptera.

Parrabarrovia Gibson	33I	*Oeneis semidea* var. *arctica* Gibson	13I
		" *simulans* Gibson	14I
		" *cairnesi* Gibson	15I
		" *brucei* var. *yukonensis* Gibson	21I
		Brenthis natazhati Gibson	21I
		" *distincta* Gibson	25I
		Parabarrovia keelei Gibson	33I
		Anarta subfumosa Gibson	34I
		Homoglæa murrayi Gibson	36I
		Diasemia alaskalis Gibson	45I
		Pyla arctiella Gibson	46I

SUMMARY.

Part	Order	New Gen.	New Sp	New Subsp	New Var
A.	Collembola				
B.	Neuropteroids		3		
C.	Diptera		2		
D.	Mallophaga and Anoplura	6	47		1
E.	Coleoptera				
F.	Hemiptera		4		
G.	Hymenoptera		1		
I.	Spiders, Mites and Myriopods		21		1
	Spiders				
	Mites		3		
	Myriopods		1		
I.	Lepidoptera	1	12	1	
I.	Orthoptera	1	9		2
	Totals	8	93	1	4

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Part A: Northern Party, 1913–18.
Part B: Southern Party, 1913–16. By Rudolph Martin Anderson. (*In preparation*).

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Part A: Mammals. By Rudolph Martin Anderson. (*In preparation*).
Part B: Birds. By. R. M. Anderson and P. A. Taverner. (*In preparation*).

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Part A: Collembola. By Justus W. Folsom. (*Issued*).
Part B: Neuropteroid Insects. By Nathan Banks. (*Issued*).
Part C: Diptera. By Chas. W. Alexander, Harrison G. Lyar, and J. R. Malloch. (*Issued*).
Part D: Mallophaga and Anoplura. By A. W. Baker, G. F. Ferris, and G. H. F. Nuttall. (*Issued*).
Part E: Coleoptera. By J. M. Swaine, H. C. Fall, C. W. Leng, and J. D. Sherman, Jr. (*Issued*).
Part F: Hemiptera. By E. P. Van Duzee. (*Issued*).
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